

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (currently amended) A method of determining the cardiac output of a patient, the method comprising the steps of:
  - (a) measuring the patient's height;
  - (b) measuring the velocity time integral or stroke distance of blood flowing from the heart of the patient;
  - (c) calculating an estimate for the cross sectional area of the heart valve based on a single variable formula; wherein the single variable is the patient's height; estimating the heart valve diameter and cross sectional area of the heart valve of the patient using correlation data, wherein the correlation data is defined as being indicative of correlation between a patient's height and the cross sectional area of the heart valve for a population of individuals; and
  - (d) calculating a value for the cardiac output of the patient as a product of the measured velocity time integral and the estimated cross sectional area of the heart valve.
2. (currently amended) A method as claimed in claim 11 ~~1~~ further comprising the step of measuring the correlation between an individual's height ~~the patient's height~~ and cross sectional area of a cardiac valve for a population of individuals ~~to provide the correlation data~~.
3. (previously presented) A method as claimed in claim 2 wherein said population is selected having similar body characteristics to said patient.
4. (previously presented) A method as claimed in claim 1 wherein said method is utilised to determine the output from either the aortic annular or the pulmonary annular.

5. (previously presented) A method as claimed in claim 1 wherein calculating a value for the cardiac output includes utilising a formula substantially of the form:

$$\text{aortic annular diameter} = 0.010 \times \text{height (cms)} + 0.25\text{cm}$$

to determine the diameter of the pulmonary valve and then determine a cross sectional area.

6. (cancelled)

7. (previously presented) A method as claimed in claim 1 wherein calculating a value for the cardiac output includes utilising a formula substantially of the form:

$$\text{pulmonary annular diameter} = 0.0106 \times \text{height (cms)} + 0.265\text{cm}$$

to determine the diameter of the pulmonary valve and then determine a cross sectional area.

8. (cancelled)

9. (previously presented) A method of determining the cardiac output of a patient, the method comprising the steps of:

- (a) measuring the patient's height;
- (b) estimating for the heart of the patient the heart valve diameter and cross sectional area of the heart valve based on the patient's height;
- (c) measuring the velocity time integral or stroke distance of blood flowing from the heart of the patient; and
- (d) calculating a value for the cardiac output of the patient as a product of the velocity time integral and the cross sectional area of the heart valve utilising a formula substantially of the form:  $\text{aortic annular diameter} = 0.010 \times \text{height (cms)} + 0.25\text{cm}$  to determine the diameter of the aortic annular and then determine a cross sectional area.

10. (previously presented) A method of determining the cardiac output of a patient, the method comprising the steps of:

- (a) measuring the patient's height;
- (b) estimating for the heart of the patient the heart valve diameter and cross sectional area of the heart valve based on the patient's height;
- (c) measuring the velocity time integral or stroke distance of blood flowing from the heart of the patient; and

calculating a value for the cardiac output of the patient as a product of the velocity time integral and the cross sectional area of the heart valve utilising a formula substantially of the form:

pulmonary annular diameter =  $0.0106 \times \text{height (cms)} + 0.265\text{cm}$  to determine the diameter of the pulmonary valve and then determine a cross sectional area.

11. (new) A method as claimed in claim 1, wherein the single variable formula is responsive to correlation data for estimating cross sectional area of the heart valve of the patient based on the patient's height; the correlation data being indicative of correlation between an individual's height and cross sectional area of a cardiac valve for a population of individuals.